

## Study of blood fat levels in patients with Arcus Juvenilis

### *Abstract*

**Background:** *Corneal arcus is a situation in which a white to yellow ring appears in the stromal tissue of the cornea and been separated from limbus by a transparent margin of 0.3 to 1 millimeters. Accumulated material of the corneal arcus are composed mainly from low density lipoproteins, phospholipids and triglyceride. In some studies, a corneal arcus under 50 year old is associated with high blood fats which can also increase the risk of cardiovascular complications in the patients.*

**Aim:** *To determine the amount of blood fats in patients with arcus juvenilis.*

**Methods and materials:** *The current study was a cross-sectional one. All of the patients who were under 50 year-old, referring to the Ardabil ophthalmology clinic of Emam Reza (pbuh) hospital and diagnosed with arcus juvenilis were enrolled in the study using case-series method. Needed information including age, gender, blood pressure, body mass index, history of smoking and alcohol consumption, type of received therapy to decrease the blood fat, xanthelasma, history of cardiovascular and cerebrovascular events were gathered using history taking and medical examination using a researcher pre-made checklist.*

**Results:** *Fifty nine cases were enrolled in the study. Among all 36 (61%) were male. 74.6% of the patients were either obese or overweight. Mean level of Cholesterol, LDL, HDL and Triglyceride were  $199.81 \pm 30.46$ ,  $114.56 \pm 24.56$ ,  $46.3 \pm 9.61$  and  $175.9 \pm 125$ .*

**Conclusion:** *Finally it can be concluded from the current study that prevalence of obesity, overweight and abnormal levels laboratory indices associated with lipids are significant in patients suffering from arcus juvenilis.*

**Keywords:** *Arcus juvenilis, Lipid profile, Arcus senilis*